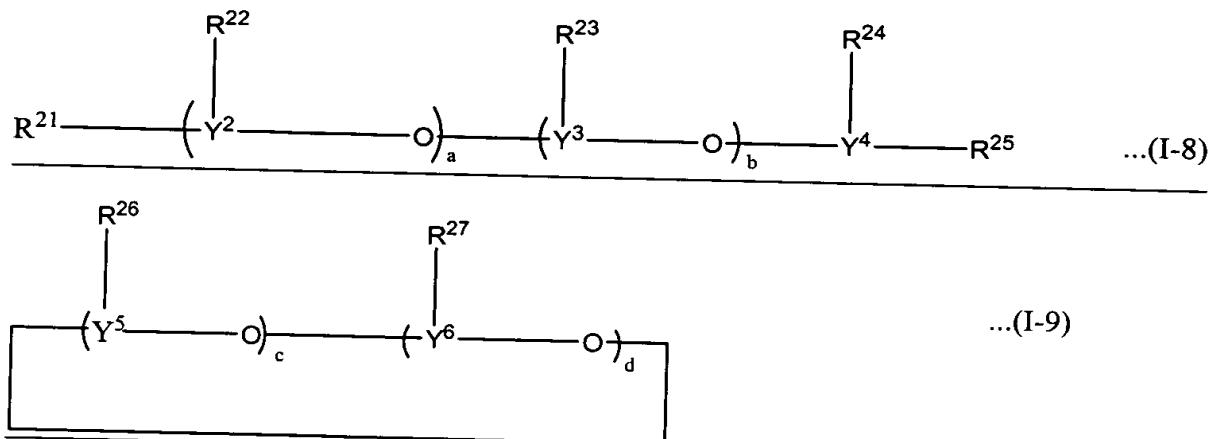


IN THE CLAIMS

Please amend the claims as follows:

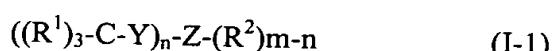
Claim 1 (Currently Amended): A catalyst for polymerization of olefins, which comprises:

- (A) a transition metal compound,
- (B) an oxygen-containing compound represented by any of the following general formulae (I-8) to (I-9):



wherein  $R^{21}$  to  $R^{27}$  each represent an alkyl group having from 1 to 8 carbon atoms and may be the same or different, and  $R^{26}$  and  $R^{27}$  may be the same or different,  $Y^2$  to  $Y^6$  each represent an element of Group 13 of the Periodic Table,  $Y^2$  to  $Y^4$  may be the same or different; and  $Y^5$  and  $Y^6$  may be the same or different,  $a$  to  $d$  each indicates a number of from 0 to 50, but  $(a+b)$  and  $(c+d)$  each must be at least 1,

- (C) a compound of a general formula (I-1):

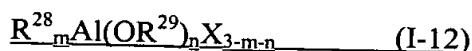


wherein  $R^1$  represents an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, [[or]] a carboxyl group,

or a cyclohexl group, R<sup>1</sup>'s may be the same or different, and R<sup>1</sup>'s may be optionally bonded to each other to form a cyclic structure; Y represents an element of Group 16; Z represents a metal element of Groups 2 to 13; R<sup>2</sup> represents a hydrocarbon group an alkyl group having at least 2 carbon atoms; m is an integer, indicating the valency of the metal element Z; and n is an integer of from 1 to (m-1),

and optionally,

(D) an alkylating agent represented by any of the following general formulae (I-12) to (I-14):



wherein R<sup>28</sup> and R<sup>29</sup> each represent an alkyl group having from 1 to 8 carbon atoms; X represents a hydrogen atom or a halogen atom, 0 < m  $\leq$  3.0  $\leq$  n < 3.

Claim 2 (Currently Amended): The catalyst as claimed in claim 1 for polymerization of olefins, wherein, in (C), Y is oxygen and Z is aluminium aluminum.

Claim 3 (Currently Amended): The catalyst as claimed in claim 1 for polymerization of olefins, wherein the compound (C) is a reaction product of a compound of a general formula, (R<sup>1</sup>)<sub>3</sub>-C-OR<sup>3</sup>, and a compound of a general formula, Z(R<sup>2</sup>)<sub>m</sub>:

in which R<sup>1</sup> represents an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, [[or]] a carboxyl group, or a cyclohexl group, R<sup>1</sup>'s may be the same or different, and R<sup>1</sup>'s may be optionally bonded to

each other to form a cyclic structure; R<sup>3</sup> represents a hydrogen atom, a halogen atom, an aliphatic hydrocarbon group having from 1 to 30 carbon atoms, an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, or a carboxyl group; Z represents a metal element of Groups 2 to 13; m is an integer, indicating the valency of the metal element Z; and R<sup>2</sup> represents a hydrocarbon group an alkyl group having at least 2 carbon atoms.

Claim 4 (Withdrawn): A catalyst for polymerization of olefins, which comprises:

(A) a transition metal compound,

(B) an oxygen-containing compound,

(C1) a compound of a general formula, (R<sup>1</sup>)<sub>3</sub>-C-OR<sup>3</sup>:

wherein R<sup>1</sup> represents an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, or a carboxyl group, R<sup>1</sup>'s may be the same or different, and R<sup>1</sup>'s may be optionally bonded to each other to form a cyclic structure; R<sup>3</sup> represents a hydrogen atom, a halogen atom, an aliphatic hydrocarbon group having from 1 to 30 carbon atoms, an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, or a carboxyl group,

(C2) a compound of a general formula, Z(R<sup>2</sup>)<sub>m</sub>,

wherein Z represents a metal element of Groups 2 to 13; m is an integer, indicating the valency of the metal element Z; and R<sup>2</sup> represents a hydrocarbon group, and optionally,

(D) an alkylating agent.

Claim 5 (Previously Presented): The catalyst for polymerization of olefins as claimed in Claim 1, wherein at least one of three R<sup>1</sup>'s is an aromatic hydrocarbon group having from 6 to 30 carbon atoms.

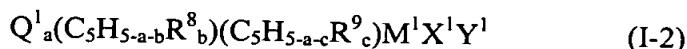
Claim 6 (Previously Presented): The catalyst for polymerization of olefins as claimed in Claim 1, wherein three R<sup>1</sup>'s are all aromatic hydrocarbon groups each having from 6 to 30 carbon atoms.

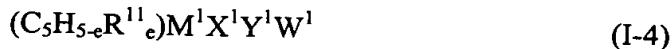
Claim 7 (Previously Presented): The catalyst for polymerization of olefins as claimed in Claim 1, wherein three R<sup>1</sup>'s are all phenyl groups.

Claim 8 (Canceled).

Claim 9 (Canceled).

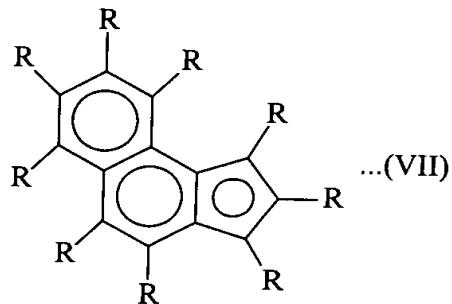
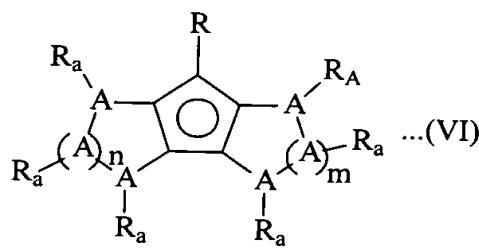
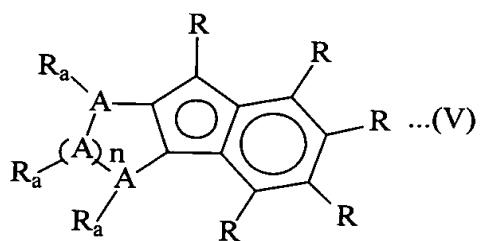
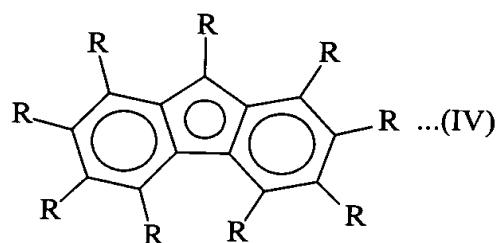
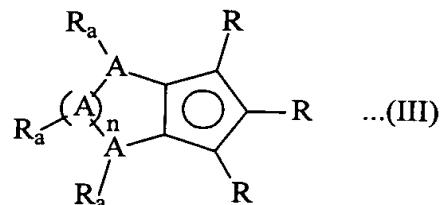
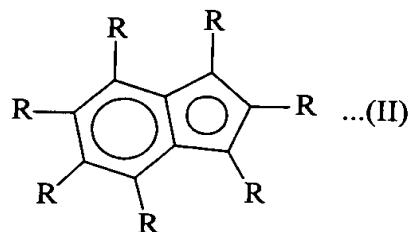
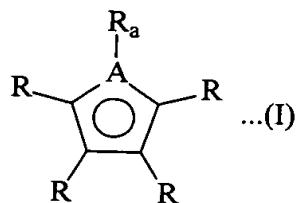
Claim 10 (Previously Presented): The catalyst for polymerization of olefins as claimed in Claim 1, wherein the transition metal compound (A) is represented by any of the following general formulae (I-2) to (I-6):





in which  $Q^1$  represents a bonding group that crosslinks the two conjugated five-membered cyclic ligands  $(C_5H_{5-a-b}R^8_b)$  and  $(C_5H_{5-a-c}R^9_c)$ ;  $Q^2$  represents a bonding group that crosslinks the conjugated five-membered cyclic ligand  $(C_5H_{5-a-d}R^{10_d})$  and the group  $Z^1$ ;  $R^8$ ,  $R^9$ ,  $R^{10}$  and  $R^{11}$  each represent a hydrocarbon group, a halogen atom, an alkoxy group, a silicon-containing hydrocarbon group, a phosphorus-containing hydrocarbon group, a nitrogen-containing hydrocarbon group, or a boron-containing hydrocarbon group; and a plurality of these groups, if any, may be the same or different, and may be bonded to each other to form a cyclic structure;  $a$  represents 0, 1 or 2;  $b$ ,  $c$  and  $d$  each represent an integer of from 0 to 5 when  $a = 0$ , or an integer of from 0 to 4 when  $a = 1$ , or an integer of from 0 to 3 when  $a = 2$ ;  $e$  is an integer of from 0 to 5;  $M^1$  represents a transition metal of Groups 4 to 6 of the Periodic Table;  $M^2$  represents a transition metal of Groups 8 to 10 of the Periodic Table;  $L^1$  and  $L^2$  each represent a coordination-bonding ligand;  $X^1$ ,  $Y^1$ ,  $Z^1$ ,  $W^1$  and  $U^1$  each represent a covalent-bonding or ionic-bonding ligand; and  $L^1$ ,  $L^2$ ,  $X^1$ ,  $Y^1$ ,  $Z^1$ ,  $W^1$  and  $U^1$  may be bonded to each other to form a cyclic structure.

Claim 11 (Original): The catalyst for polymerization of olefins as claimed in claim 10, wherein, in the transition metal compound (A) of formula (I-4), the group  $(C_5H_{5-e}R^{11-e})$  is represented by any of the following general formulae (I) to (VII):



wherein A represents an element of Group 13, 14, 15 or 16, and plural A's may be the same or different; R represents a hydrogen atom, a halogen atom, an aliphatic hydrocarbon group having from 1 to 30 carbon atoms, an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a

thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, a carboxyl group, or an alkylsilyl or alkylsilylalkyl group having from 3 to 30 carbon atoms, and R's may be the same or different, and may be optionally bonded to each other to form a cyclic structure; a represents 0, 1 or 2; and n and m each represent an integer of at least 1.

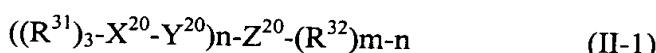
Claim 12 (Previously Presented): A method for producing olefinic polymers, which comprises polymerizing olefins in the presence of the polymerization catalyst of Claim 1.

Claim 13 (Withdrawn): A catalyst for polymerization of olefins, which comprises:

(A) a transition metal compound,

(B) a compound capable of reacting with a transition metal compound to form an ionic complex,

(C) a compound of a general formula (II-1):



wherein R<sup>31</sup> represents a hydrogen atom, a halogen atom, an aliphatic hydrocarbon group having from 1 to 30 carbon atoms, an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, or a carboxyl group, R<sup>31</sup>'s may be the same or different, and R<sup>31</sup>'s may be optionally bonded to each other to form a cyclic structure; X<sup>20</sup> represents an element of Group 14; Y<sup>20</sup> represents an element of Group 16; Z<sup>20</sup> represents a metal element of Groups 2 to 13; R<sup>32</sup> represents a hydrocarbon group; m is an integer, indicating the valency of the metal element Z<sup>20</sup>; and n is an integer of from 1 to (m-1),

and optionally,

(D) an alkylating agent.

Claim 14 (Withdrawn): The catalyst for polymerization of olefins as claimed in claim 13, wherein, in (C), Y<sup>20</sup> is oxygen and Z<sup>20</sup> is aluminium.

Claim 15 (Withdrawn): The catalyst for polymerization of olefins as claimed in claim 13, wherein the compound (C) is a reaction product of a compound of a general formula, (R<sup>31</sup>)<sub>3</sub>-C-OR<sup>33</sup>, and a compound of a general formula, Z<sup>20</sup>(R<sup>32</sup>)<sub>m</sub>:

in which R<sup>31</sup> represents a hydrogen atom, a halogen atom, an aliphatic hydrocarbon group having from 1 to 30 carbon atoms, an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, or a carboxyl group, R<sup>31</sup>'s may be the same or different, and R<sup>31</sup>'s may be optionally bonded to each other to form a cyclic structure; Z<sup>20</sup> represents a metal element of Groups 2 to 13; R<sup>32</sup> represents a hydrocarbon group; R<sup>33</sup> represents a hydrogen atom, a halogen atom, an aliphatic hydrocarbon group having from 1 to 30 carbon atoms, an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, or a carboxyl group, and may be the same or different; m is an integer, indicating the valency of the metal element Z<sup>20</sup>; and n is an integer of from 1 to (m-1).

Claim 16 (Withdrawn): A catalyst for polymerization of olefins, which comprises:  
(A) a transition metal compound,

(B) a compound capable of reacting with a transition metal compound to form an ionic complex,

(C1) a compound of a general formula,  $(R^{31})_3-C-OR^{33}$ :

wherein  $R^{31}$  represents a hydrogen atom, a halogen atom, an aliphatic hydrocarbon group having from 1 to 30 carbon atoms, an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, or a carboxyl group,  $R^{31}$ 's may be the same or different, and  $R^{31}$ 's may be optionally bonded to each other to form a cyclic structure;  $R^{33}$  represents a hydrogen atom, a halogen atom, an aliphatic hydrocarbon group having from 1 to 30 carbon atoms, an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, or a carboxyl group, and may be the same or different,

(C2) a compound of a general formula,  $Z^{20}(R^{32})_m$ ,

wherein  $Z^{20}$  represents a metal element of Groups 2 to 13;  $m$  is an integer, indicating the valency of the metal element  $Z^{20}$ ; and  $R^{32}$  represents a hydrocarbon group, and optionally,

(D) an alkylating agent.

Claim 17 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 13, wherein at least one of three  $R^{31}$ 's is an aromatic hydrocarbon group having from 6 to 30 carbon atoms.

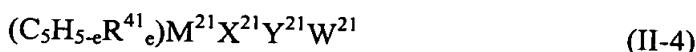
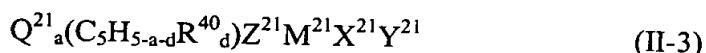
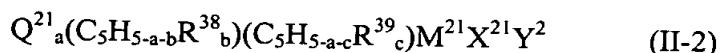
Claim 18 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 13, wherein three  $R^{31}$ 's are all aromatic hydrocarbon groups each having from 6 to 30 carbon atoms.

Claim 19 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 13, wherein three  $R^{31}$ 's are all phenyl groups.

Claim 20 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 13, wherein  $R^{32}$  is an alkyl group having at least 2 carbon atoms.

Claim 21 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 15, wherein  $Z$  is aluminium.

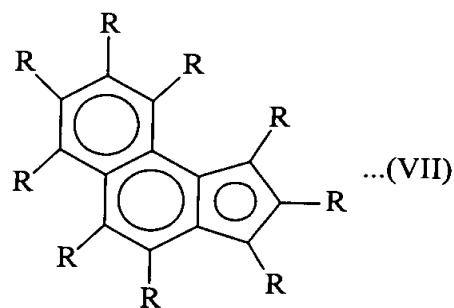
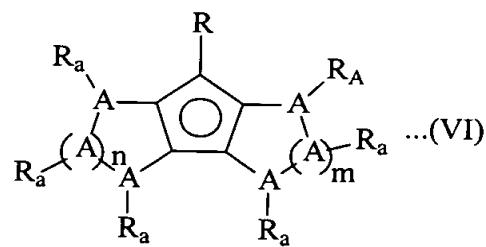
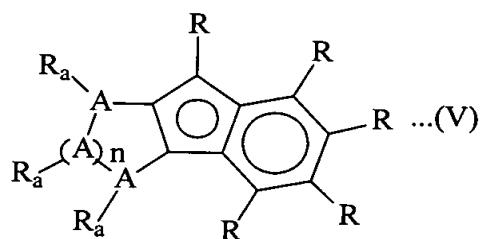
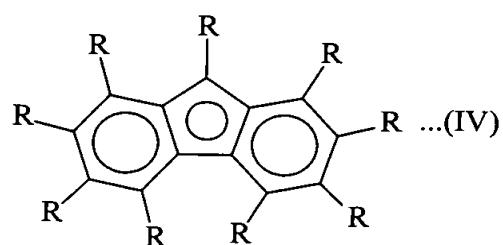
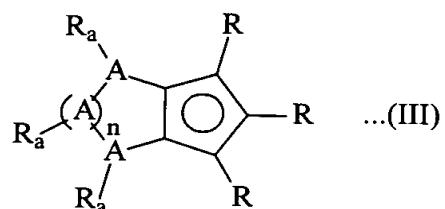
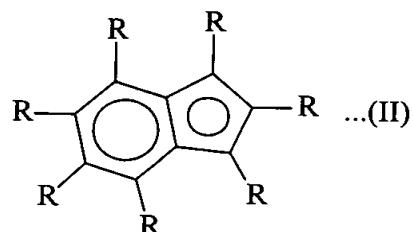
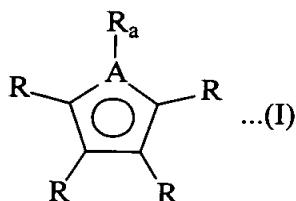
Claim 22 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 13, wherein the transition metal compound (A) is represented by any of the following general formulae (II-2) to (II-6):



in which  $Q^{21}$  represents a bonding group that crosslinks the two conjugated five-membered cyclic ligands  $(C_5H_{5-a-b}R^{38})_b$  and  $(C_5H_{5-a-c}R^{39})_c$ ;  $Q^{22}$  represents a bonding group that crosslinks the conjugated five-membered cyclic ligand  $(C_5H_{5-a-d}R^{40})_d$  and the group  $Z^{21}$ ;  $R^{38}$ ,  $R^{39}$ ,  $R^{40}$  and  $R^{41}$  each represent a hydrocarbon group, a halogen atom, an alkoxy group, a

silicon-containing hydrocarbon group, a phosphorus-containing hydrocarbon group, a nitrogen-containing hydrocarbon group, or a boron-containing hydrocarbon group; and a plurality of these groups, if any, may be the same or different, and may be bonded to each other to form a cyclic structure; a represents 0, 1 or 2; b, c and d each represent an integer of from 0 to 5 when a = 0, or an integer of from 0 to 4 when a = 1, or an integer of from 0 to 3 when a = 2; e is an integer of from 0 to 5; M<sup>21</sup> represents a transition metal of Groups 4 to 6 of the Periodic Table; M<sup>22</sup> represents a transition metal of Groups 8 to 10 of the Periodic Table; L<sup>21</sup> and L<sup>22</sup> each represent a coordination-bonding ligand; X<sup>21</sup>, Y<sup>21</sup>, Z<sup>21</sup>, W<sup>21</sup> and U<sup>21</sup> each represent a covalent-bonding or ionic-bonding ligand; and L<sup>21</sup>, L<sup>22</sup>, X<sup>21</sup>, Y<sup>21</sup>, Z<sup>21</sup>, W<sup>21</sup> and U<sup>21</sup> may be bonded to each other to form a cyclic structure.

Claim 23 (Withdrawn): The catalyst for polymerization of olefins as claimed in claim 22, wherein, in the transition metal compound (A) of formula (II-4), the group (C<sub>5</sub>H<sub>5-e</sub>R<sup>41</sup>)<sub>e</sub> is represented by any of the following general formulae (I) to (VII):



wherein A represents an element of Group 13, 14, 15 or 16, and plural A's may be the same or different; R represents a hydrogen atom, a halogen atom, an aliphatic hydrocarbon group having from 1 to 30 carbon atoms, an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, a

carboxyl group, or an alkylsilyl or alkylsilylalkyl group having from 3 to 30 carbon atoms, and R's may be the same or different, and may be optionally bonded to each other to form a cyclic structure; a represents 0, 1 or 2; and n and m each represent an integer of at least 1.

**Claim 24 (Withdrawn):** A method for producing olefinic polymers, which comprises polymerizing olefins in the presence of the polymerization catalyst of Claim 13.

**Claim 25 (Withdrawn):** The catalyst for polymerization of olefins as claimed in Claim 4, wherein at least one of three R<sup>1</sup>'s is an aromatic hydrocarbon group having from 6 to 30 carbon atoms.

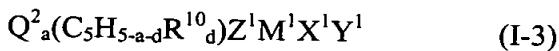
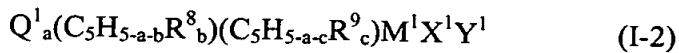
**Claim 26 (Withdrawn):** The catalyst for polymerization of olefins as claimed in Claim 4, wherein three R<sup>1</sup>'s are all aromatic hydrocarbon groups each having from 6 to 30 carbon atoms.

**Claim 27 (Withdrawn):** The catalyst for polymerization of olefins as claimed in Claim 4, wherein three R<sup>1</sup>'s are all phenyl groups.

**Claim 28 (Withdrawn):** The catalyst for polymerization of olefins as claimed in Claim 4, wherein R<sup>2</sup> is an alkyl group having at least 2 carbon atoms.

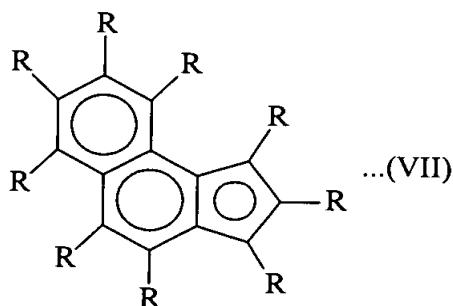
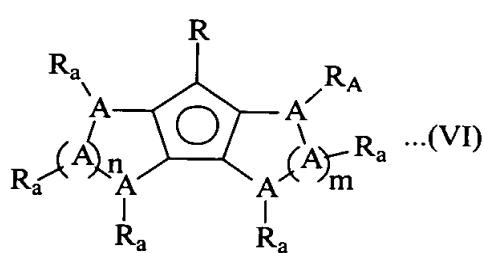
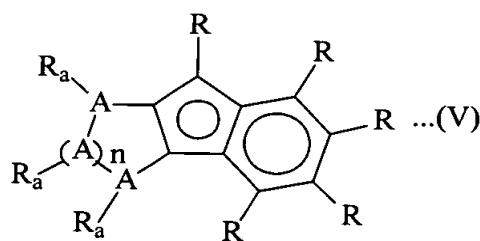
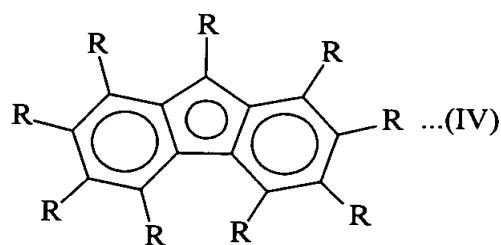
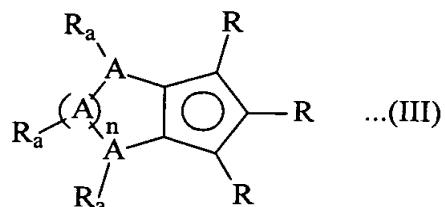
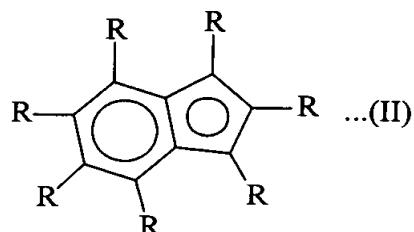
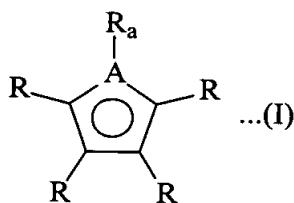
**Claim 29 (Withdrawn):** The catalyst for polymerization of olefins as claimed in Claim 4, wherein Z is aluminium.

Claim 30 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 4, wherein the transition metal compound (A) is represented by any of the following general formulae (I-2) to (I-6):



in which  $Q^1$  represents a bonding group that crosslinks the two conjugated five-membered cyclic ligands  $(C_5H_{5-a-b}R^8_b)$  and  $(C_5H_{5-a-c}R^9_c)$ ;  $Q^2$  represents a bonding group that crosslinks the conjugated five-membered cyclic ligand  $(C_5H_{5-a-d}R^{10}_d)$  and the group  $Z^1$ ;  $R^8$ ,  $R^9$ ,  $R^{10}$  and  $R^{11}$  each represent a hydrocarbon group, a halogen atom, an alkoxy group, a silicon-containing hydrocarbon group, a phosphorus-containing hydrocarbon group, a nitrogen-containing hydrocarbon group, or a boron-containing hydrocarbon group; and a plurality of these groups, if any, may be the same or different, and may be bonded to each other to form a cyclic structure;  $a$  represents 0, 1 or 2;  $b$ ,  $c$  and  $d$  each represent an integer of from 0 to 5 when  $a = 0$ , or an integer of from 0 to 4 when  $a = 1$ , or an integer of from 0 to 3 when  $a = 2$ ;  $e$  is an integer of from 0 to 5;  $M^1$  represents a transition metal of Groups 4 to 6 of the Periodic Table;  $M^2$  represents a transition metal of Groups 8 to 10 of the Periodic Table;  $L^1$  and  $L^2$  each represent a coordination-bonding ligand;  $X^1$ ,  $Y^1$ ,  $Z^1$ ,  $W^1$  and  $U^1$  each represent a covalent-bonding or ionic-bonding ligand; and  $L^1$ ,  $L^2$ ,  $X^1$ ,  $Y^1$ ,  $Z^1$ ,  $W^1$  and  $U^1$  may be bonded to each other to form a cyclic structure.

Claim 31 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 30, wherein, in the transition metal compound (A) of formula (I-4), the group (C<sub>5</sub>H<sub>5</sub>-eR<sup>11</sup>) is represented by any of the following general formulae (I) to (VII):



wherein A represents an element of Group 13, 14, 15 or 16, and plural A's may be the same or different; R represents a hydrogen atom, a halogen atom, an aliphatic hydrocarbon

group having from 1 to 30 carbon atoms, an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, a carboxyl group, or an alkylsilyl or alkylsilylalkyl group having from 3 to 30 carbon atoms, and R's may be the same or different, and may be optionally bonded to each other to form a cyclic structure; a represents 0, 1 or 2; and n and m each represent an integer of at least 1.

Claim 32 (Withdrawn): A method for producing olefinic polymers, which comprises polymerizing olefins in the presence of the polymerization catalyst of Claim 4.

Claim 33 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 16, wherein at least one of three R<sup>31</sup>'s is an aromatic hydrocarbon group having from 6 to 30 carbon atoms.

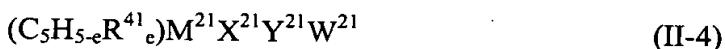
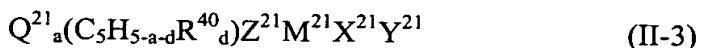
Claim 34 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 16, wherein three R<sup>31</sup>'s are all aromatic hydrocarbon groups each having from 6 to 30 carbon atoms.

Claim 35 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 16, wherein three R<sup>31</sup>'s are all phenyl groups.

Claim 36 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 16, wherein R<sup>32</sup> is an alkyl group having at least 2 carbon atoms.

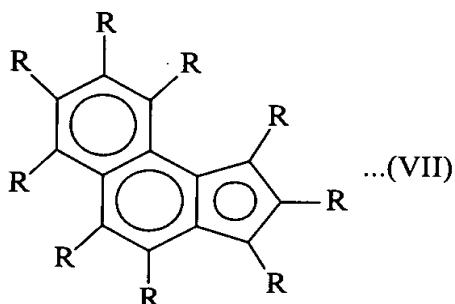
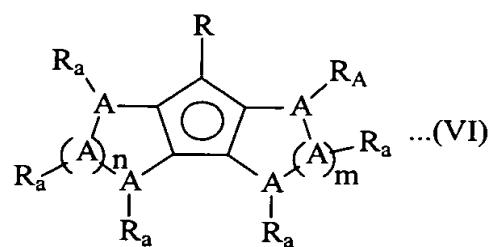
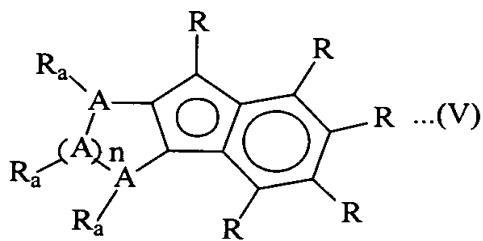
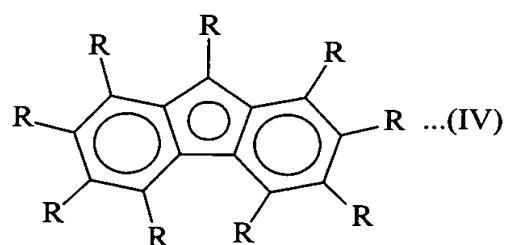
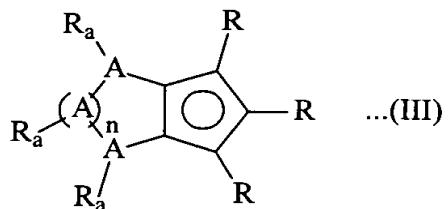
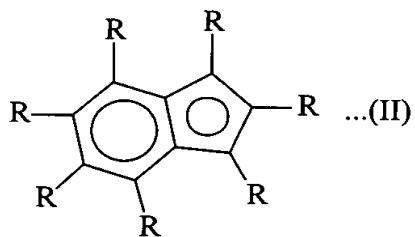
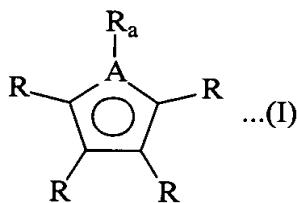
Claim 37 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 16, wherein Z is aluminium.

Claim 38 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 16, wherein the transition metal compound (A) is represented by any of the following general formulae (II-2) to (II-6):



in which  $Q^{21}$  represents a bonding group that crosslinks the two conjugated five-membered cyclic ligands  $(C_5H_{5-a-b}R^{38}b)$  and  $(C_5H_{5-a-c}R^{39}c)$ ;  $Q^{22}$  represents a bonding group that crosslinks the conjugated five-membered cyclic ligand  $(C_5H_{5-a-d}R^{40}d)$  and the group  $Z^{21}$ ;  $R^{38}$ ,  $R^{39}$ ,  $R^{40}$  and  $R^{41}$  each represent a hydrocarbon group, a halogen atom, an alkoxy group, a silicon-containing hydrocarbon group, a phosphorus-containing hydrocarbon group, a nitrogen-containing hydrocarbon group, or a boron-containing hydrocarbon group; and a plurality of these groups, if any, may be the same or different, and may be bonded to each other to form a cyclic structure;  $a$  represents 0, 1 or 2;  $b$ ,  $c$  and  $d$  each represent an integer of from 0 to 5 when  $a = 0$ , or an integer of from 0 to 4 when  $a = 1$ , or an integer of from 0 to 3 when  $a = 2$ ;  $e$  is an integer of from 0 to 5;  $M^{21}$  represents a transition metal of Groups 4 to 6 of the Periodic Table;  $M^{22}$  represents a transition metal of Groups 8 to 10 of the Periodic Table;  $L^{21}$  and  $L^{22}$  each represent a coordination-bonding ligand;  $X^{21}$ ,  $Y^{21}$ ,  $Z^{21}$ ,  $W^{21}$  and  $U^{21}$  each represent a covalent-bonding or ionic-bonding ligand; and  $L^{21}$ ,  $L^{22}$ ,  $X^{21}$ ,  $Y^{21}$ ,  $Z^{21}$ ,  $W^{21}$  and  $U^{21}$  may be bonded to each other to form a cyclic structure.

Claim 39 (Withdrawn): The catalyst for polymerization of olefins as claimed in Claim 38, wherein, in the transition metal compound (A) of formula (II-4), the group ( $C_5H_5$ - $eR^{41}e$ ) is represented by any of the following general formulae (I) to (VII):



wherein A represents an element of Group 13, 14, 15 or 16, and plural A's may be the same or different; R represents a hydrogen atom, a halogen atom, an aliphatic hydrocarbon group having from 1 to 30 carbon atoms, an aromatic hydrocarbon group having from 6 to 30 carbon atoms, an alkoxy group having from 1 to 30 carbon atoms, an aryloxy group having from 6 to 30 carbon atoms, a thioalkoxy group having from 1 to 30 carbon atoms, a thioaryloxy group having from 6 to 30 carbon atoms, an amino group, an amido group, a carboxyl group, or an alkylsilyl or akylsilylalkyl group having from 3 to 30 carbon atoms, and R's may be the same or different, and may be optionally bonded to each other to form a cyclic structure; a represents 0, 1 or 2; and n and m each represent an integer of at least 1.

Claim 40 (Withdrawn): A method for producing olefinic polymers, which comprises polymerizing olefins in the presence of the polymerization catalyst of Claim 16.

BASIS FOR THE AMENDMENT

The Abstract has been amended to comply with the Rules, as so requested by the Examiner.

Claim 1 has been amended to limit component (B) to be of the formula (I-8) or (I-9), as so disclosed at page 49, line 8 to page 50, line 17 of the specification.

In the definition of component (C), R<sup>2</sup> has been defined as in Claim 8, Claim 8 thus having been canceled, R<sup>1</sup> has been defined as now also including the cyclohexyl group, as in Example I-2 (note page 67, lines 11-19 wherein tricyclohexyl methanol is used), and optionally an alkylating agent (D) of the formulas (I-12), (I-13), or (I-14), as disclosed at page 55, line 17 to page 57, line 5 of the specification.